



Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### LaBelle Lakes #1 and #2

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#### Waterbody Segment at a Glance:

**County:** Lewis  
**Nearby Cities:** LaBelle  
**Area Impaired, Lake #1:** 17 acres  
**Area Impaired, Lake #2:** 112 acres  
**Pollutant:** Atrazine  
**Source:** Corn, sorghum production

**Note:** LaBelle Lake #1 is proposed for deletion from the 2002 303(d) list. LaBelle Lake #2 is being added to the list for mercury (see the Mercury Info Sheet).



**TMDL Priority Ranking:** Medium

State map showing location of watershed

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#### Description of the Problem

##### Beneficial uses of LaBelle Lakes #1 and #2

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption
- Boating and Canoeing
- Drinking Water Supply

##### Use that is impaired

- Drinking Water Supply

##### Standards that apply:

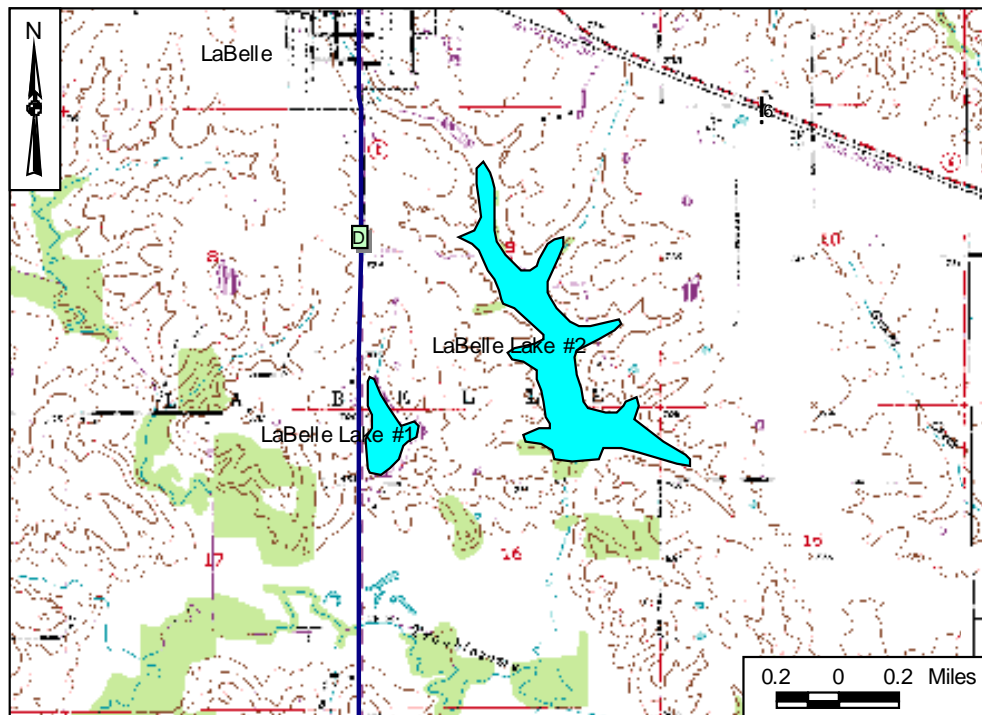
- The impairment of this lake is based on exceedence of the specific criterion of 3 micrograms per liter ( $\mu\text{g/L}$ ) atrazine, as an average of the period of record, contained in Missouri's Water Quality Standards10 CSR 20-7.031, Table A.

The two LaBelle Reservoirs total 129 acres in size and are the sole public water supply source for about 850 people in LaBelle, and with the city of Edina supplies water to 3,000 people served by Knox County Public Water Supply District No.1. Runoff from corn and sorghum production areas in the watershed has resulted in measurable amounts of atrazine being detected within these lakes.

Atrazine is a widely used herbicide for control of broadleaf weeds. It is the most heavily used herbicide on corn and grain sorghum in Missouri. Since 1993, its use has been greatly restricted.

Atrazine is considered a possible human carcinogen, so the state standard for allowable amounts in drinking water supply source waters is set at the very low level of 3 µg/L or parts per billion. The long term atrazine average in Lake #1 is now only 0.17 µg/L and this lake is proposed for deletion from the 2002 303(d) list. Lake #2 now has a long term average atrazine level of 3.58 µg/L. The long term atrazine average for finished water produced by LaBelle is 1 µg/L. Herbicide monitoring of both lakes by the Department of Natural Resources will continue. The following information contains a map of the lake area and graphs that summarize the existing data.

### Map of LaBelle Lakes #1 and #2



### Atrazine Concentrations in LaBelle Lake #1 (µg/L)

August, 1999	0.71
December, 1999	0.51
March, 2000	0
June, 2000	0
September, 2000	0

Source: Missouri Dept of Natural Resources

**Atrazine Concentrations in LaBelle Lake #2  
(µg/L)**

June, 1992	9
September, 1992	9.2
December, 1992	4.7
March, 1993	3.4
June, 1993	3.1
August, 1999	0.62
December, 1999	0.62
March, 2000	0
June, 2000	0
September, 2000	0.57

Source: Missouri Dept of Natural Resources

**Average Yearly Atrazine Concentrations in LaBelle Lake #2  
(µg/L)**

1996 (August – November)	7.33
1997 (January – November)	3.32
1998 (January – November)	1.9
1999 (January – December)	1.0

Source: Novartis Inc.

**Average Monthly Atrazine Concentrations in LaBelle Lake #2  
(µg/L)**

January (1997-1999)	3.07
February (1997-1999)	2.27
March (1997-1999)	2.33
April (1997-1999)	1.8
May (1997-1999)	1.87
June (1997-1999)	2.07
July (1997-1999)	1.9
August (1996-1999)	3.45
September (1996-1999)	3.35
October (1996-1999)	2.95
November (1996-1999)	3.28
December (1999)	0.7

Source: Novartis Inc.

**Atrazine Concentrations in LaBelle Lake #2, 1991  
(µg/L)**

March	0.85
June	26
June	27
November	5
November	7.2

Source: University of Missouri

For more information call or write:  
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